

CLAIMS

1. A method of separating antibodies from one or more contaminants in a solution, which method comprises contacting the solution with a chromatography resin comprised of a support to which multi-modal ligands have been immobilised, wherein a multi-modal ligand comprises at least one cation-exchanging group and at least one aromatic or heteroaromatic ring system, to adsorb antibodies and/or contaminants to the resin.
2. A method according to claim 1, wherein the ring-forming atoms of the aromatic or hereoaromatic entity are selected among C, S or O.
3. A method according to claim 1 or 2, wherein the cation-exchanging group is a weak cation exchanger.
4. A method according to any one of the preceding claims, wherein the solution applied to the multi-modal chromatography resin is an antibody-containing eluate from an affinity chromatography resin, and preferably a resin the ligands of which comprise Protein A.
5. A method according to claim 4, wherein the contaminants comprise complexes formed between released affinity ligands and antibodies, and/or aggregates of released affinity ligands and/or antibodies.
6. A method according to any one of the preceding claims, wherein the contaminants are adsorbed to the multi-modal chromatography resin.
7. A method according to any one of the preceding claims, which comprises eluting antibodies and/or contaminants from the chromatography resin.
8. A method according to any one of the preceding claims, wherein the antibodies are monoclonal antibodies.
9. A kit for purification of antibodies, which kit comprises a multi-modal chromatography resin; at least two different buffers; and written instructions that describe how to separate antibodies from complexes formed between Protein A and antibodies, and/or aggregates of Protein A or antibodies, wherein a multi-modal ligand comprises at least one cation-exchanging group and at least one aromatic or heteroaromatic ring system.

10. A kit according to claim 9, wherein the ring-forming atoms of the aromatic or heteroaromatic entity are selected among C, S or O.
11. A system for the purification of antibodies from a liquid, which system comprises a first chromatography column packed with a resin the ligands of which comprise Protein A or Protein G; a second chromatography column packed with a multi-modal chromatography resin comprising at least one cation-exchanging group and at least one aromatic or heteroaromatic ring system; means for adding sample and elution buffer to the first column; means for adding eluent originating from the first column to the second column; pumping means; and valving.
12. A system according to claim 11, which is automated.